## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, or claims in the application.

- 1. 10. (Cancelled).
- 11. (Currently amended) An artificial full-thickness corneal transplant support comprising consisting essentially of:
- a) a base biopolymer having the thickness of approximately an average cornea;
- b) said biopolymer having incorporated within it an attachment reagent comprising one or more of the following: laminin, fibronectin, RGDS (SEQ ID NO: 1), bFGF conjugated with polycarbophil, and EGF conjugated with polycarbophil, and hoparin sulfate; and
- c) said biopolymer having the shape of a cornea, with a convex and concave side and suitable for implantation onto a damaged cornea.
- 12. (Original) The composition of claim 11, wherein the biopolymer is comprised of collagen IV.
- 13. (Currently amended) An artificial full-thickness corneal transplant <del>comprising</del> consisting essentially of:
- a) a base biopolymer having the thickness of approximately an average cornea;
- b) said biopolymer having incorporated within it an attachment reagent comprising one or more of the following: laminin, fibronectin, RGDS (SEQ ID NO: 1), bFGF conjugated with polycarbophil, and EGF conjugated with polycarbophil, and heparin sulfate;

- c) said biopolymer having the shape of a cornea, with a convex and concave side;
- d) a confluent layer of human corneal endothelial cells on said the convex side of the biopolymer;
- e) said transplant suitable for implantation onto a damaged cornea.
- 14. (Currently amended) An artificial half-thickness corneal transplant support comprising consisting essentially of:
- a) a base biopolymer having the thickness of approximately one half the thickness of an average cornea;
- b) said biopolymer having incorporated within an attachment reagent comprising one or more of the following: laminin, fibronectin, RGDS (SEQ ID NO: 1), bFGF conjugated with polycarbophil, and EGF conjugated with polycarbophil, and heparin sulfate; and
- c) said biopolymer having the shape of a cornea, <u>with a convex</u> and concave side and suitable for implantation onto a damaged cornea.
- 15. (Currently amended) An artificial half-thickness corneal transplant <del>comprising</del> consisting essentially of:
- a) a base biopolymer having the thickness of approximately one half the thickness of an average cornea;
- b) said biopolymer having incorporated within an attachment reagent comprising one or more of the following: laminin, fibronectin, RGDS (SEQ

ID NO: 1), bFGF conjugated with polycarbophil, <u>and</u> EGF conjugated with polycarbophil, <del>and heparin sulfate</del>;

- c) said biopolymer having the shape of a cornea with a convex and concave side; and
- d) a confluent layer of human corneal endothelial cells on said biopolymer;
- e) said transplant suitable for implantation onto a damaged cornea.
- 16. (Original) The artificial cornea of claim 15 wherein the biopolymer is collagen IV.
- 17. (Currently amended) The artificial eornea corneal transplant support of claim 11, wherein the biopolymer is non-swelling in the presence of culture media.
- 18. 26. (Cancelled).
- 27. (New) The artificial full-thickness corneal transplant support of claim 11, wherein said biopolymer is coated with diamond like carbon.
- 28. (New) The artificial full-thickness corneal transplant of claim 13, wherein said biopolymer is coated with diamond like carbon.